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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,938	12/14/2001	Kirby Gannett Vosburgh	RD-26907	3887

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[REDACTED] ART UNIT [REDACTED] PAPER NUMBER

2876

DATE MAILED: 12/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/016,938	VOSBURGH, KIRBY GANNETT
<b>Examiner</b>	<b>Art Unit</b>	
Allyson N Sanders	2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                  2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-13 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-13 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6) <input type="checkbox"/> Other: _____

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 1 and 7 are objected to because of the following informalities:

Re claim 1, line 3: Substitute “the exterior” with --an exterior--.

Re claim 7, line 1: Substitute “the fabrication” with --a fabrication--.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 4, 9, and 11 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Re claims 4 and 9: The process of “machining” is not described in the specification. The examiner is unclear what “formed by machining” means.

Re claim 11: A turbine bucket is not disclosed in the specification.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2876

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 7, 8, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over McQueen et al (6,069,696) in view of Bunte et al (6,330, 975).

6. Regarding claim 1, a method of self-referencing a structure having an exterior mappable by a light gauge system, the method comprising the steps of applying an identifying marker to the exterior of the structure; and creating a contour map representation of the structure such that the identifying marker forms part of a map representation is disclosed.

McQueen et al teaches the following in regards to claim 1:

"The present invention provides in one aspect an object recognition system and method capable of identifying products with increased accuracy." (Col. 1, lines 65-67).

"In one embodiment, an object recognition system comprises a sensing apparatus for collecting light reflected from objects presented at a point-of-sale machine. The sensing apparatus includes a mechanism for separating the color components of the light reflected from the unknown object and directing the color components onto an optical detector." (Col. 2, lines 1-6).

"More specifically, the FIG. 1 object recognition system 30 comprises a light collection system 31 connected to a light separator 32. A light source 38 emits light 25 (preferably uniform white light) which may be reflected from an object 29 to be recognized, and the reflected light 26 is gathered by the light

collection system 31 and directed to the light separator 32. The light separator 32 directs light in a manner specified later herein onto an optical detector 34 (for example, a one-dimensional imaging array or a two-dimensional imaging array) for detecting the reflected light. A pattern recognition system 37 is connected to the optical detector 34 and processes spectral response data from the optical detector 34, along with other data that may be provided, to determine the likely identity of the object based at least in part on the spectral response data." (Col. 3 and 4, lines 55-2).

"In a preferred embodiment, the additional data capture system 530 comprises an optical property measuring device, such as an object recognition system (such as that of FIG. 1), or alternatively, any of a number of video camera-based item recognition systems as are known in the art. In this embodiment, the additional optical data capture system 530 views the item to be identified through the same optically transmissive aperture 510 used by the optical code reader 520 (which may be a combined reader/scale). This configuration allows the co-existence of the optical code reader 520 and the additional data capture system 530, by the sharing of the optically transmissive portion between the two systems, thereby resulting in a reduction of space required and economies of shared components. Further, an operator using the FIG. 8 device at a checkstand need not move items from one data collection surface to another." (Col. 12, lines 32-47).

"In another embodiment, an optical code reader and additional data gathering unit are co-located within a single, integrated unit. The additional data

Art Unit: 2876

gathering unit may be an object recognition system, or some other type of data gathering unit. The optical code reader and additional data gathering unit preferably share all or part of the same exit aperture. By such integration, the operator need not move items from one data collection surface to another, and the economies of shared components are realized." (Col. 2, lines 39-47).

7. Regarding claim 2, the method of claim 1 further comprising the step of indexing the contour map representation of the structure with the identifying marker in a searchable database is disclosed.

"A preferred pattern recognition means includes a database of stored spectral response patterns and other product-specific characteristics defined within a multi-dimensional coordinate space, and employs a pattern recognition algorithm such as a nearest neighbor classification." (Col. 2, lines 27-31).

"The pattern recognition system 37 preferably stores predefined images in a database 36 "library" of prestored images. When an image of the unknown object is captured, the pattern recognition system 37 references the prestored images in the database 36 to perform the pattern recognition process." (Col. 11, lines 4-9).

8. Regarding claim 7, the method of claim 1 further comprising the step of tracking the fabrication or service life of the structure using the identifying marker is disclosed.

McQueen teaches a barcode reading device. Barcodes are most often used for the purpose of tracking information regarding the item or structure that it is attached to. Each barcode can contain different information depending on

what is desired for the specific item that it is placed on. Tracking the fabrication or service life of the structure via barcodes is a common teaching among prior art.

9. Regarding claim 8, an identified structure comprising an exterior surface, wherein the exterior surface includes an identifying marker readable by a light gauge system is disclosed.

See McQueen's teachings in regards to claim 1.

10. Regarding claim 11, the structure of claim 8 wherein the structure is a turbine bucket is disclosed.

Although the examiner is not sure what a turbine bucket is, it is obvious that a bar code or identification label could be placed on any object that one is interested in gaining information about.

11. Regarding claim 12, the structure of claim 8 wherein the identifying marker forms a part of a mapped and searchable computer-based representation of the structure is disclosed.

See McQueen et al's teachings in regard to claim 2.

McQueen et al's teaches an object recognition system which is used for identifying products with increased accuracy. The object recognition system comprises a sensing apparatus for collecting and decoding light reflected from objects. The decoder is further used for recognizing and decoding bar codes. Therefore the system is capable of recognizing an object by both a bar code and by collecting light that is reflected from object that is being analyzed. McQueen fails to teach however, creating an image from the identifying marker.

Bunte et al teaches the following regarding claim 1:

"With the system 100 in the horizontal orientation as illustrated in FIG. 1, the image capture module 102 receives light reflected from a bar code 122 through a capture window 109 located on an end portion of the module 102. An optical path of the module 102 focuses the light onto a photo-detector array located within the module 102. The photo-detector array converts the light reflected from the bar code 122 into a captured image which is then processed and displayed on the display 114. Components of the system 100 executing these functions will be further described hereinafter." (Col. 7, lines 49-509).

In view of Bunte et al's teaching, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to use the image capturing system taught by Bunte et al, which creates an image from scanning the bar code, but also include the object recognition system taught by McQueen. One would be motivated to combine the two sensing systems in order to use McQueen et al's light gauging technique and also be able to use it in combination with objects that include bar codes.

12. Claims 5, 6, 10, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over McQueen et al (6,069,696) in view of Bunte et al (6,330, 975) and in further view of Ludden (4,791,284).

13. Regarding claims 5 and 6, the method of claim 1 wherein the identifying marker is established as a bar-code label adhesively applied to the exterior surface of the structure and the identifying marker being a serial pattern uniquely associated with the structure is disclosed.

McQueen et al and Bunte et al's teachings are discussed above.

McQueen et al in combination with Bunte et al fails to teach the bar code label adhesively applied to the exterior surface of the structure and having the marker be a serial pattern uniquely associate with the structure.

Ludden teaches the following in regards to claims 5 and 6:

"Another object of the invention is to provide a sheet having a plurality of adhesive bar code masks which can be cut out and used separately to etch bar codes onto different metal surfaces, each mask encoding different information such as different serial numbers and being positioned on the sheet in accordance with the encoded information." (Col. 2, lines 62-68).

In view of Ludden's teaching, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to use bar codes that can be adhesively applied to the surface of the structure that also include serial patterns. Adhesive bar codes and serial patterns are well known in the art.

14. Regarding claim 10, the structure of claim 8 wherein the identifying marker is a coded label adhesively applied to the exterior surface of the structure is disclosed.

See Ludden's teaching in regards to claim 5.

15. Regarding claim 13, the structure of claim 8 wherein the identifying marker is applied to a region of the exterior surface that is not critical for measurement of acceptance of the structure is disclosed.

Ludden teaches placing the bar code label onto a metal surface. Any placement of the bar code is important. It would have been obvious to an artisan

Art Unit: 2876

of ordinary skill in the art at the time the invention was made to place the bar code on a region of the exterior surface that is not critical for measurement of acceptance of the structure.

16. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over McQueen et al (6,069,696) in view of Bunte et al (6,330, 975) and in further view of Moore et al (5,917,174).

Regarding claim 3, the method of claim 3 wherein the identifying marker is established as a raised pattern on the exterior surface of the structure is disclosed.

McQueen et al and Bunte et al's teachings are discussed above.

McQueen et al in combination with Bunte et al fails to teach the bar code being raised.

Moore et al teaches the following in regards to claim 3:

"The bar code may be raised to assist the visually impaired person in locating the exact location of the bar code to facilitate scanning thereof."  
(Abstract, lines 10-13).

In view of Ludden's teaching, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to use bar codes that are raised. Raised bar codes are well known in the art and because they are raised, they stand out more clearly and no more easily noticed.

***Conclusion***

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Seevers et al (6,260,023), Espy et al (5,969,317), Pidhirny et al (6,473,519), and Kucharczyk (6,460,770).

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Allyson Sanders* whose telephone number is (703) 305-5779. The examiner can normally be reached between the hours of 7:30AM to 4:00PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (703) 305-3503. The fax phone number for this Group is (703) 308-7722, (703) 308-7724, or (703) 308-7382.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [[allyson.sanders@uspto.gov](mailto:allyson.sanders@uspto.gov)].

*All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.*

Art Unit: 2876

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Allyson Sanders  
Patent Examiner  
Art Unit 2876  
November 21, 2002



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